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10/025,900	12/19/2001	Konstantin I. Boudnik	SUNMP031	1972

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EXAMINER

TO, JENNIFER N

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/025,900

Applicant(s)

BOUDNIK ET AL.

Examiner

Jennifer N. To

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09/09/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-22 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line number in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the Examiner and Applicant all future correspondence should include the recommended line numbering.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter in which the applicant regards as his invention.
4. Claims 1-4, 5-13, 14-17 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim language in the following claims is not clearly understood:

- i. as per claim 1, line 3, it is not clearly understood how the "identifying a main task" base on (i.e. the utilization of the task. Line 8, it is not clearly understood what meant by "the code of the main task having program instructions for" (i.e. the code of the main task having program instruction,

or the code of the main task having program instruction for requesting loading of code for the subtask to a second computing system?). Line 9, it is uncertain how the “requesting loading of code for the subtask to a second computing system” being done (i.e. by the program instruction of the main task?). Line 9, it is uncertain whether the code refers in “loading of code for the subtask” is the same or different with the code of the main task. Lines 10-11, it is not clearly understood what meant by “the code for the subtask being in client-server communication with the code for the main task” (i.e. the code for the subtask is in client-server communication with the code for the main task?).

- ii. as per claim 5, it has the same deficiency as claim 1 above. Corrections are required.
- iii. as per claim 7, the word “substantially” renders the claim unclear.
- iv. as per claims 8, 14, 15, and 20, they have the same deficiency as claim 7 above. Corrections are required.
- v. as per claim 13, it is not clearly understood what meant by “the main task is a test harness”.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2195

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8, 10-13, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616), in view of Gross (U.S. Patent No. 5371883).

7. As per claim 1, Stamm teaches the invention substantially as claim including a method for executing processing tasks in a distributed processing framework system (abstract, lines 1-4), the method comprising:

identifying a main task of a tasklist (col. 3, lines 1-3);

identifying a subtask of the main task (col. 1, line 55; col. 2, lines 36-37); and

allocating computing resources for each of the main task and the subtask (fig. 5, col. 3, lines 14-20).

Stamm did not specifically teach deploying the main task to a first computing system that is part of the distributed processing framework system, a code of the main task being executed on the first computing system, the code of the main task having program instructions for, requesting loading of code for the subtask to a second computing system that is part of the allocated computing resources, the code for the subtask being in client-server communication with the code for the main task, such that the code for the main task receives processing results directly from the code for the subtask.

Art Unit: 2195

8. However, Gross teaches:

deploying the main task to a first computing system that is part of the distributed processing framework system (col. 2, lines 15-18), a code of the main task being executed on the first computing system (col. 2, lines 18-20), the code of the main task having program instructions for (col. 2, lines 30-31); and

requesting loading of code for the subtask to a second computing system that is part of the allocated computing resources (col. 3, lines 14-18), the code for the subtask being in client-server communication with the code for the main task (col. 2, lines 66-68, col. 3, lines 1-6), such that the code for the main task receives processing results directly from the code for the subtask (col. 3, lines 17-20).

9. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Stamm and Gross because Gross deploying and executing the main task in the first computing system, then sending the instruction for the subtask to be executed would improve the performance of Stamm's system by providing a centralized test environment with a single control process which exclusively governs test sequencing and timing and allowing easier synchronization of the execution of testing across multiple machine (Gross, col. 1, lines 66-68; col. 2, lines 1-3).

10. As per claim 2, Gross teaches the processing results received from the subtask are implemented to create a main task processing results to be communicated to a system controller (col. 2, lines 33-43).

11. As per claim 3, Stamm teaches the system controller releases the allocated computing resources upon receiving the main task processing results from the main task (col. 5, lines 48-53).

12. As per claim 4, Gross teaches a plurality of subtasks in addition to the subtask, the plurality of subtasks configured to be controlled by the main task (fig. 1).

13. As per claim 5, Stamm teaches a method for distributing an execution of a plurality of tasks within a tasklist by a system controller, the plurality of tasks configured to be processed by a plurality of processing resources in a distributed processing framework (DPF) system, the method comprising:

loading the tasklist, the tasklist having a main task and a subtask (col. 3, lines 1-7); and

allocating a processing resource to execute each task within the tasklist (fig. 5; col. 3, lines 14-20);

Gross teaches:

deploying the main task for execution (col. 2, lines 15-18);

deploying the subtask to the processing resource upon receiving a special request for the subtask from the main task (col. 4, lines 5-15); and  
enabling communication between the main task and the subtask, the communication configured to provide the main task with a result of a subtask execution (col. 2, lines 66-68, col. 3, lines 1-6; col. 3, lines 17-20).

14. As per claim 6, Stamm teaches communicating a result of a main task execution to the system controller, wherein the system controller releases the plurality of processing resources upon receiving the result of main task execution (col. 5, lines 48-53).

15. As per claim 7, Stamm teaches allocating the processing resource to execute each task within the tasklist includes:

loading the tasklist by the system controller (fig. 3; col. 3, lines 1-7);  
searching a registry service for the processing resource having a plurality of attributes substantially identical to a plurality of attributes of each task within the tasklist (col. 4, lines 11-13; col. 8, lines 18-19); and  
allocating each of the processing resources having attributes substantially identical to the plurality of each of the tasks to the execution of the task having the substantially identical attributes (col. 4, lines 13-15).

Art Unit: 2195

16. As per claim 8, Stamm teaches deploying the subtask to the processing resource upon receiving a special request for the subtask from the main task includes:

dispatching a special request to the system controller (col. 3, lines 58-59), the special request configured to include the plurality of attributes of the subtask (col. 3, lines 60-62);

searching a plurality of processing resources allocated, the searching configured to locate the subtask having the plurality of attributes included in the special request (col. 4, lines 5-13); and

deploying the located subtask to the processing resource having a plurality of attributes substantially identical to the plurality of attributes of the subtask (col. 4, lines 14-15).

17. As per claim 10, Gross teaches the DPF is a distributed test framework (DTF) system (col. 1, lines 3-5).

18. As per claim 11, Gross teaches the main task is operated on a processing resource server (fig. 1).

19. As per claim 12, Stamm teaches the subtask is operated on a processing resource client (col. 3, lines 24-25; col. 3, line 34).

20. As per claim 13, Gross teaches the main task is a test harness (fig. 1, col. 3, lines 16-17).

21. As per claim 16, Gross teaches the DPF system is a distributed test framework system (col. 1, lines 3-5).

22. As per claim 17, Gross teaches the processing resource is a test system (fig. 1).

23. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616), in view of Gross (U.S. Patent No. 5371883) as applied in claim 1, and further in view of Downs (U.S. Patent No. 6112243).

24. As per claim 9, Stamm and Gross teach the invention substantially as claimed in claim 1. Stamm and Gross did not specifically teach the registry service is a look up service.

However, Downs teaches the registry service is a look up service (fig. 2, item 32; col. 3, lines 65-67).

25. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Stamm, Gross and Downs because Downs look up service would improve the integrity of Stamm and Gross's system by offering a minimum level of service and a level of guarantee so that clients

Art Unit: 2195

can select a variety of options that corresponding to client's task, cost, and time requirement (Downs, col. 2, lines 32-34).

26. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616).

27. As per claim 14, Stamm teaches the invention substantially as claim including a method for distributing an execution of a plurality of tasks by a system controller, the plurality of tasks configured to be processed by a plurality of processing resources in a distributed processing framework (DPF) system, the method comprising:

allocating a processing resource to execute each of the plurality of tasks (fig. 5; col. 3, lines 14-20);

deploying each task to a respective processing resource substantially at the same time(col. 4, lines 19-26); receiving a result task from each processing resource upon a conclusion of each task (col. 5, lines 48-51); and

releasing the plurality of processing resources upon receiving a result of an execution from each of the plurality of processing resources (col. 5, lines 50-53).

Stamm did not specifically teach loading a plurality of tasks to be executed. However, Stamm disclosed in response to a request from a client, the server selects a subtask for execution (col. 1, lines 59-60).

Art Unit: 2195

28. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have recognized in response to requests the controller must load a plurality of task available for selecting a task for execution. Stamm disclosed the step of a server selects a subtask/task for execution. Therefore it would have been obvious that the server would load the task/subtask to be available for selecting a task/subtask for execution.

29. As per claim 15, Stamm teaches allocating a processing resource to execute each of the plurality of tasks includes:

searching a registry service for the processing resource having a plurality of attributes substantially identical to a plurality of attributes of each task (col. 4, lines 11-13; col. 8, lines 18-19); and

allocating each of the processing resources having attributes substantially identical to the plurality of each of the tasks to the execution of the task having the substantially identical attributes (col. 4, lines 13-15).

30. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616), in view of Carter (U.S. Patent No. 5371883).

31. As per claim 18, Stamm teaches the invention substantially as claim including method for distributing an execution of a plurality of tasks by a system controller, the plurality of tasks configured to be processed by a plurality of processing resources in a

Art Unit: 2195

distributed processing framework (DPF) system, the method comprising: allocating a processing resource to execute each of the plurality of tasks; and releasing the plurality of processing resources upon receiving a result of an execution for each of the plurality of tasks (col. 5, lines 48-53).

Stamm did not specifically teach loading a plurality of tasks to be executed.

However, Stamm disclosed in response to a request from a client, the server selects a subtask for execution (col. 1, lines 59-60).

It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have recognized in response to requests the controller must load a plurality of task available for selecting a task for execution. Stamm disclosed the step of a server selects a subtask/task for execution. Therefore it would have been obvious that the server would load the task/subtask to be available for selecting a task/subtask for execution.

32. In addition, Stamm did not specifically teach deploying a first task of the plurality of tasks to a first processing resource of the plurality of processing resources; deploying a second task of the plurality of tasks to a second processing resource of the plurality of processing resources upon receiving a result of an execution of the first task; releasing the plurality of processing resources upon receiving a result of an execution for each of the plurality of tasks.

However, Carter teaches deploying a first task of the plurality of tasks to a first processing resource of the plurality of processing resources (col. 27, lines 17-27); and

Art Unit: 2195

deploying a second task of the plurality of tasks to a second processing resource of the plurality of processing resources upon receiving a result of an execution of the first task (col. 27, lines 28-31).

33. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Stamm and Carter because Carter deploying a first task to a first processing resource and deploying a second task to a second processing resource upon receiving a result of an execution of the first task would improve the performance of Stamm's system by provide an operating system that provides the capability of executing concurrent tasks or process (Carter, col. 1, lines 45-46).

As per claim 19, Stamm further teaches caching the result of the execution for each of the plurality of tasks (col. 3, lines 35-42).

34. As per claim 20, Stamm teaches allocating a processing resource to execute each of the plurality of tasks includes:

searching a registry service for the processing resource having a plurality of attributes substantially identical to a plurality of attributes of each task (col. 4, lines 11-13; col. 8, lines 18-19); and

allocating each of the processing resources having attributes substantially identical to the plurality of each of the tasks for the execution of the task having the substantially identical attributes (col. 4, lines 13-15).

35. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616), in view of Carter (U.S. Patent No. 5371883) as applied in claim 18, and further in view of Downs (U.S. Patent No. 6112243).

36. As per claim 21, Stamm and Carter teach the invention substantially as claimed in claim 18. Stamm and Carter did not specifically teach the registry service is a look up service.

However, Carter teaches the registry service is a look up service (fig. 2, item 32; col. 3, lines 65-67).

37. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Stamm, Carter, and Downs because Downs look up service would improve the integrity of Stamm and Carter's system by offering a minimum level of service and a level of guarantee so that clients can select a variety of options that corresponding to client's task, cost, and time requirement (Downs, col. 2, lines 32-34).

Art Unit: 2195

38. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616), in view of Carter (U.S. Patent No. 5371883) as applied in claim 18, and further in view of Gross (U.S. Patent No. 5371883).

39. As per claim 22, Stamm and Carter teach the invention substantially as claimed in claim 18. Stamm and Carter did not specifically teach the DPF is a distributed test framework (DTF) system.

However, Gross teaches the DPF is a distributed test framework (DTF) system (col. 1, lines 3-5).

40. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Stamm, Carter, and Gross because Gross testing system would improve the performance of Stamm and Carter's system by providing a centralized test environment with a single control process which exclusively governs test sequencing and timing and allowing easier synchronization of the execution of testing across multiple machine (col. 1, lines 66-68; col. 2, lines 1-3).

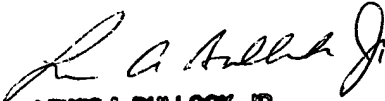
### ***Conclusion***

41. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer N. To whose telephone number is (571) 272-7212. The examiner can normally be reached on M-T 7AM- 4:30 PM, F 7AM- 3:30 PM.

Art Unit: 2195

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**LEWIS A. BULLOCK, JR.**  
**PRIMARY EXAMINER**

Jennifer N To  
Examiner  
Art Unit 2195